



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/761,119

01/20/2004

Hajime Sugito

4041K-000168

3126

27572 7590 01/23/2008  
HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. BOX 828  
BLOOMFIELD HILLS, MI 48303

EXAMINER

FORD, JOHN K

ART UNIT

PAPER NUMBER

3744

MAIL DATE

DELIVERY MODE

01/23/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/761,119

Applicant(s)

SUGITO ET AL.

Examiner

John K. Ford

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Nov 5, 2007
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 7-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)

Paper No(s)/Mail Date 2004-01-20, 2007-04-06

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Applicant's election in the November 5, 2007 response of the sub-species of Figure 10 (claims 1-6), without traverse, is acknowledged. Turning to the March 13, 2007 response, applicant's election of the third species, without traverse, is acknowledged. The election requirement is deemed proper and made final. Claims 1-6 are examined here.

Applicant's petition under 37 CFR 1.48(b) to correct inventorship of March 13, 2007 is acknowledged. It is approved. The inventive entity, after correction, will be Hajime Sugito, sole inventor.

The examiner is appreciative of applicant's inclusion of a translation of the JPO rejection mailed 2/6/07. Two questions remain. Were the claims being examined at that time by the JPO identical to those presented here? If not, how were they different? Have any claims been allowed in the Japanese prosecution of the corresponding application? If so, please provide a translation of any allowed or rejected independent claim in response to this action. The examiner is seeking to make decisions consistent with and/or cognizant of the overseas prosecution.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 8, "**for** hermetically sealing" is functional language treated consistent with MPEP 2114. If applicant intends to claim a hermetically sealed space,

he must claim enough of his disclosed structure so as to positively and unambiguously define such a space. If applicant chooses not to positively claim a hermetically sealed space, applicant is put on notice that there is much prior art related to stacked plate heat exchangers (much of it of Denso origin) with two circulating fluids. In claim 2, it is unclear whether applicant intends to claim a heat generating member on the top face or not. In other words, the "**may be**" mounted language is vague. Positively claim it or delete it so that there is no confusion. In claims 5 and 6 the word "internal" appears to be mis-descriptive. Aren't the heat sources in the elected species/sub-species on the outer surface and not internal? Likewise in claims 5 and 6, "corresponding to" is vague. What does it mean? Horizontally aligned? Vertically aligned? Something else? Please explain/amend as appropriate.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2002-286382.

For purposes of explanation, reference is made to USP 6,810,947 which applicant has identified as an equivalent of JP '382. In Figure 8, a lower plate 60B, an upper plate (the lowest plate in stack 90), a plurality of intermediate plates (60A, 60C.,

60D, 60E and 60F) are all shown. These intermediate plates all have apertures defining a first space (see Figures 9A-9E) for hermetically sealing a refrigerant therein. A second space, between tubes 80 is in proximity to the first space. A heat generating member 40 is mounted on the outer surface of the lower plate. Regarding applicant's claim 2, broadly construed, there is no heat source positively being claimed on the upper surface. Heat exchange occurs primarily in core unit 300. The upper plate (the lowest plate in stack 90) is in proximity to the second space (particularly between tubes 80).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2002-286382 as applied to claim 4 above, and further in view of JP 2001-339027.

JP '027 teaches multiple heat sources on the bottom plate. In view of such a teaching, to have used multiple heat sources on the bottom plate of JP 2002-286382 would have been obvious to one of ordinary skill in the art in a situation needing such cooling (e.g. multiple motor thyristers in an electric vehicle, for example).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2002-286382 as applied to claim 4 above, and further in view of JP 2002-164490.

JP '490 teaches multiple heat sources on the top plate. In view of such a teaching, to have used multiple heat sources on the top plate of JP 2002-286382 would have been obvious to one of ordinary skill in the art in a situation needing such cooling (e.g. multiple sub-systems such as inverter controls in an electric vehicle, for example).

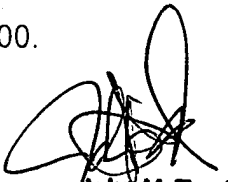
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John K. Ford whose telephone number is 571-272-4911. The examiner can normally be reached on Mon.-Fri. 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:  
10/761,119  
Art Unit: 3744

Page 6

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**John K. Ford**  
Primary Examiner